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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,315	06/28/2004	Shichao Ge	4582-008	9868
22429	7590	06/15/2006	EXAMINER	
LOWE HAUPTMAN BERNER, LLP 1700 DIAGONAL ROAD SUITE 300 ALEXANDRIA, VA 22314			REHM, ADAM C	
			ART UNIT	PAPER NUMBER
			2875	

DATE MAILED: 06/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/500,315

Applicant(s)

GE, SHICHAO

Examiner

Adam C. Rehm

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999).

2. The term "glue" in claim 4 appears to be used by the claim to mean "lens", as indicated by Figure 4. However, the accepted meaning is a substance that is used to

Art Unit: 2875

attach one material to another. The term is indefinite because the specification does not clearly redefine the term.

3. Claim 7 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 7 recites the limitation "the LED axis" in Line 2.
- Claim 10 recites the limitation "the electrical connector" in Line 1.

There is insufficient antecedent basis for these limitations in the claims.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-5, 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by WORGAN ET AL. (US 6,568,833) which discloses:

- A plurality of LED chips that omit different or same light and connected in serial or parallel (24/26) mounted on a heat sink/base having flanges (38/top of 38) via screws (18) and having a reflector in front of the LED chip/around the base (130 is "in the area or vicinity of" the base) and angled between 10-70 degrees from the optical axis (Fig. 4), the chip is

Art Unit: 2875

electrically connected to an applied power supply (Column 2, Lines 46-47) through circuit boards (10) and thereon has a light-converting, transparent layer/lens (Column 1, Lines 12-20; Column 2, Lines 11-12; a lens converts light direction).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over WORGAN ET AL. (US 6,568,833), which discloses the claimed invention including a heat sink, but does not specifically disclose a metal heat sink. However, it is notoriously known that metal conducts heat and it would have been obvious to one having ordinary skill in the art at the time the invention was made to manufacture the heat sink out of metal, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

6. Claims 9 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over WORGAN ET AL. (US 6,568,833) and Applicant's admitted prior art. While WORGAN substantially discloses the claimed invention, WORGAN does not specifically disclose a transparent bulb housing mounted over the LED having a driving circuit. However, Applicant admits that a transparent bulb housing (109, Fig. 1) and a driving

Art Unit: 2875

circuit connected to outgoing leads of an LED (104/105, Fig. 1) are known. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the WORGAN device and use the bulb housing with driving circuit as taught by Applicant in order to obtain the benefits thereof, which are notoriously known.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over WORGAN ET AL. (US 6,568,833) and BEGEMANN (US 6,220,722). WORGAN substantially discloses the claimed invention, but does not disclose a screw lamp head electrical connection means. However, BEGEMANN teaches an LED lamp with threaded base (Fig. 2) for the purpose of electrical connection (fig. 2). It would have been obvious to one of ordinary skill in the art at the time of invention to modify WORGAN and use the threaded base as taught by BEGEMANN in order to provide a common and readily available electrical connection.

8. Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over WORGAN ET AL. (US 6,568,833) and MOORE (US 3,936,686). While WORGAN substantially discloses the claimed invention, WORGAN does not disclose a parabolic, reflective heat sink. However, MOORE teaches a parabolic reflective heat sink for dissipating heat and reflecting light (Column 6, Lines 3-12). It would have been obvious to one of ordinary skill in the art at the time of invention to modify WORGAN and use the heat sink as taught by MOORE in order to obtain the benefits thereof, i.e. reflecting light while dissipating heat.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. SAGAL ET AL. (US 6,827,470)
10. CHEN (US 6,659,632)
11. STOPA ET AL. (US 6,318,886)
12. MAGLICA ET AL. (US 4,885,668)

***Correspondence***

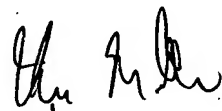
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam C. Rehm whose telephone number is 571.272.8589. The examiner can normally be reached on M-F 9-5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 571.272.2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2875

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ACR  
6/8/2006

  
Thomas M. Scalo  
Primary Examiner